

## WEST Search History





DATE: Friday, December 29, 2006

Hide?	<u>Set</u> <u>Name</u>	<u>Query</u>	<u>Hit</u> <u>Count</u>
		<i>DB=PGPB,USPT; PLUR=YES; OP=OR</i>	
<input type="checkbox"/>	L20	(525/298 )![CCLS]	222
<input type="checkbox"/>	L19	(525/312 )![CCLS]	224
		<i>DB=PGPB; PLUR=YES; OP=OR</i>	
<input type="checkbox"/>	L18	(525/312 )![CCLS]	4
<input type="checkbox"/>	L17	L16 and @pd > 20061229	0
<input type="checkbox"/>	L16	(copolymer and olefin monomer and hydroxystyrene and capping or diphenylalkene or diphenylethylene).clm.	3939
		<i>DB=PGPB,USPT; PLUR=YES; OP=OR</i>	
<input type="checkbox"/>	L15	(525/328.9)![CCLS]	269
<input type="checkbox"/>	L14	(525/328.8)![CCLS]	359
<input type="checkbox"/>	L13	(525/326.5)![CCLS]	186
<input type="checkbox"/>	L12	(525/288)![CCLS]	505
<input type="checkbox"/>	L11	(525/270)![CCLS]	117
<input type="checkbox"/>	L10	(525/245)![CCLS]	273
<input type="checkbox"/>	L9	(525/299)![CCLS]	168
<input type="checkbox"/>	L8	(526/279)![CCLS]	1324
<input type="checkbox"/>	L7	(526/135)![CCLS]	367
<input type="checkbox"/>	L6	(526/313)![CCLS]	545
<input type="checkbox"/>	L5	(526/312)![CCLS]	928
<input type="checkbox"/>	L4	(526/299)![CCLS]	84
<input type="checkbox"/>	L3	(526/299)![CCLS]	84
<input type="checkbox"/>	L2	L1 and @pd > 20060524	0
<input type="checkbox"/>	L1	US-6750267-\$.DID. OR US-6469115-\$.DID. OR US-6268451-\$.DID. OR US-6194597-\$.DID. OR US-6051657-\$.DID. OR US-6046281-\$.DID. OR US-6025437-\$.DID. OR US-5981785-\$.DID. OR US-5777044-\$.DID. OR US-5700625-\$.DID. OR US-5690861-\$.DID. OR US-5677386-\$.DID. OR US-5665837-\$.DID. OR US-5637647-\$.DID. OR US-5451647-\$.DID. OR US-5428111-\$.DID. OR US-5122572-\$.DID. OR US-4965340-\$.DID. OR US-4910321-\$.DID. OR US-4568732-\$.DID. OR US-4182818-\$.DID. OR US-4129557-\$.DID.	22

END OF SEARCH HISTORY

S/N 10/776,674

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 17:05:39 ON 29 DEC 2006

=> set abbr on perm  
SET COMMAND COMPLETED

=> set plurals on perms  
'ON PERMS' IS NOT VALID HERE  
For an explanation of the SET command, enter "HELP SET" at an arrow prompt (=>).

=> set plurals on perm  
SET COMMAND COMPLETED

	SINCE FILE	TOTAL
	ENTRY	SESSION
COST IN U.S. DOLLARS		
FULL ESTIMATED COST	0.21	0.21

FILE 'USPATFULL' ENTERED AT 17:06:13 ON 29 DEC 2006  
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 17:06:13 ON 29 DEC 2006  
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CAPLUS' ENTERED AT 17:06:13 ON 29 DEC 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'JAPIO' ENTERED AT 17:06:13 ON 29 DEC 2006  
COPYRIGHT (C) 2006 Japanese Patent Office (JPO) - JAPIO

=> s (olefin or ethylene or propylene or isoprene or isobutylene or isobutene) (8a) (hydroxystyren? or hydroxy(1w)styren? or vinylphenol or vinyl(1w)phenol or protect####(1a)hydroxy?)  
L1 794 (OLEFIN OR ETHYLENE OR PROPYLENE OR ISOPRENE OR ISOBUTYLENE OR ISOBUTENE) (8A) (HYDROXYSTYREN? OR HYDROXY(1W) STYREN? OR VINYLPHENOL OR VINYL(1W) PHENOL OR PROTECT####(1A) HYDROXY?)

=> s (copolymer# or interpolymmer#) (s) (capping or capped or diphenylalkene or diphenylethylene or diphenyl(1w)alkene or diphenyl(1w)ethylene)  
L2 6728 (COPOLYMER# OR INTERPOLYMER#) (S) (CAPPING OR CAPPED OR DIPHENYLALKENE OR DIPHENYLETHYLENE OR DIPHENYL(1W) ALKENE OR DIPHENYL(1W) ETHYLENE)

=> s l1 and l2  
L3 16 L1 AND L2

=> d l3 1-16 ibib abs

L3 ANSWER 1 OF 16 USPATFULL on STN  
ACCESSION NUMBER: 2006:124448 USPATFULL  
TITLE: Patternable low dielectric constant materials and their use in ULSI interconnection  
INVENTOR(S): Lin, Qinghuang, Yorktown Heights, NY, UNITED STATES  
Sooriyakumaran, Ratnam, San Jose, CA, UNITED STATES  
PATENT ASSIGNEE(S): International Business Machines Corporation, Armonk, NY, UNITED STATES (U.S. corporation)

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	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006105181	A1	20060518
APPLICATION INFO.:	US 2005-314307	A1	20051221 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2003-338945, filed on 8 Jan 2003, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	SCULLY SCOTT MURPHY & PRESSER, PC, 400 GARDEN CITY PLAZA, SUITE 300, GARDEN CITY, NY, 11530, US		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1-18		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	1172		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to ultra-large scale integrated (ULSI) interconnect structures, and more particularly to patternable low dielectric constant (low-k) materials suitable for use in ULSI interconnect structures. The patternable low-k dielectrics disclosed herein are functionalized polymers that having one or more acid-sensitive imageable functional groups.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 2 OF 16 USPATFULL on STN

ACCESSION NUMBER: 2005:221674 USPATFULL  
TITLE: Triazine compounds, polymers comprising triazine structural units, and method  
INVENTOR(S): Brown, Sterling Bruce, Niskayuna, NY, UNITED STATES  
Brack, Hans Peter, Al Etten-Leur, NETHERLANDS  
Cella, James Anthony, Clifton Park, NY, UNITED STATES  
Karlik, Dennis, Bergen op Zoom, NETHERLANDS  
PATENT ASSIGNEE(S): General Electric Co. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005192411	A1	20050901
APPLICATION INFO.:	US 2003-672789	A1	20030926 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2001-941050, filed on 28 Aug 2001, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENERAL ELECTRIC COMPANY, GE PLASTICS, ONE PLASTICS AVENUE, PITTSFIELD, MA, 01201, US		
NUMBER OF CLAIMS:	99		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2331		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB In various embodiments the present invention comprises 2,4,6-trisubstituted-1,3,5-triazine capping agents comprising one, two, or three leaving groups as substituents with any remaining substituents being essentially inert to reaction with a nucleophilic group on a polymer or monomer, or reactive with a nucleophilic group on a polymer or monomer at a slower rate than any leaving group. The invention also comprises polymers or monomers with nucleophilic groups capped with a triazine moiety. Still other embodiments of the invention comprise processes for capping nucleophilic groups in a polymer or monomer which comprises combining and reacting the polymer or monomer with a triazine-comprising capping agent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L3 ANSWER 3 OF 16 USPATFULL on STN

ACCESSION NUMBER: 2005:203465 USPATFULL  
TITLE: Copolymers comprising olefin and protected or  
unprotected hydroxystyrene units  
INVENTOR(S): Faust, Rudolf, Lexington, MA, UNITED STATES  
Sipos, Laszlo, Dracut, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005176891	A1	20050811
APPLICATION INFO.:	US 2004-776674	A1	20040211 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	LAHIVE & COCKFIELD, LLP., 28 STATE STREET, BOSTON, MA, 02109, US		
NUMBER OF CLAIMS:	36		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	847		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel copolymers, including block copolymers, which comprise: (a) a plurality of constitutional units that correspond to one or more olefin monomer species and (b) a plurality of constitutional units that correspond to one or more protected or unprotected hydroxystyrene monomer species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 4 OF 16 USPATFULL on STN

ACCESSION NUMBER: 2004:178075 USPATFULL  
TITLE: Patternable low dielectric constnt materials and their  
use in ULSI interconnection  
INVENTOR(S): Lin, Qinghuang, Yorktown Heights, NY, UNITED STATES  
Sooriyakumaran, Ratnam, San Jose, CA, UNITED STATES  
PATENT ASSIGNEE(S): International Business Machines Corporation, Armonk, NY  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004137241	A1	20040715
	US 7041748	B2	20060509
APPLICATION INFO.:	US 2003-338945	A1	20030108 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Steven Fischman, Esq., Scully, Scott, Murphy & Presser, 400 Garden City Plaza, Garden City, NJ, 11530		
NUMBER OF CLAIMS:	23		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	1263		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to ultra-large scale integrated (ULSI) interconnect structures, and more particularly to patternable low dielectric constant (low-k) materials suitable for use in ULSI interconnect structures. The patternable low-k dielectrics disclosed herein are functionalized polymers that having one or more acid-sensitive imageable functional groups.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 5 OF 16 USPATFULL on STN

ACCESSION NUMBER: 2004:159388 USPATFULL  
TITLE: Polar group-containing olefin copolymer, process for

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INVENTOR(S): preparing the same, thermoplastic resin composition  
containing the copolymer, and uses thereof  
Imuta, Junichi, Sodegaura-shi, JAPAN  
Kashiwa, Norio, Sodegaura-shi, JAPAN  
Ota, Seiichi, Sodegaura-shi, JAPAN  
Moriya, Satoru, Ichihara-shi, JAPAN  
Nobori, Tadahito, Sodegaura-shi, JAPAN  
Mizutani, Kazumi, Sodegaura-shi, JAPAN  
PATENT ASSIGNEE(S): Mitsui Chemicals, Inc. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004122192	A1	20040624
APPLICATION INFO.:	US 2003-713278	A1	20031117 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2001-947460, filed on 7 Sep 2001, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-272345	20000907
	JP 2000-345736	20001113
	JP 2000-345737	20001113
	JP 2000-345738	20001113
	JP 2000-345814	20001113
	JP 2000-345815	20001113
	JP 2000-345816	20001113
	JP 2000-362632	20001129

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747

NUMBER OF CLAIMS: 27  
EXEMPLARY CLAIM: 1  
LINE COUNT: 8328

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is a polar group-containing olefin copolymer having excellent adhesion properties to metals or polar resins and excellent compatibility therewith. A process for preparing the copolymer, a thermoplastic resin composition containing the copolymer, and uses thereof are also described. The polar group-containing olefin copolymer comprises a constituent unit derived from an  $\alpha$ -olefin of 2 to 20 carbon atoms, and a constituent unit derived from a straight-chain, branched or cyclic polar group-containing monomer having at the end a polar group such as a hydroxyl group or an epoxy group and/or a constituent unit derived from a macromonomer having at the end a polymer segment obtained by anionic polymerization, ring-opening polymerization or polycondensation. The polar group-containing olefin copolymer and the thermoplastic resin composition containing the copolymer are used for films, sheets, modifiers, building/civil engineering materials, automobile exterior trim, electric/electronic parts, coating bases, compatibilizing agents, etc.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 6 OF 16 USPATFULL on STN  
ACCESSION NUMBER: 2003:210069 USPATFULL  
TITLE: Method of continuous cationic living polymerization  
INVENTOR(S): Terazawa, Hiromu, Kobe, JAPAN  
Wachi, Shun, Takasago, JAPAN  
Furukawa, Naoki, Himeji, JAPAN  
PATENT ASSIGNEE(S): Kaneka Corporation, Osaka, JAPAN (non-U.S. corporation)

NUMBER	KIND	DATE
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S/N 10/776,674

PATENT INFORMATION:	US 6602965	B1	20030805
	WO 2000075193		20001214
APPLICATION INFO.:	US 2002-980778		20020322 (9)
	WO 2000-JP3703		20000608

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-161122	19990608
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Wu, David W.	
ASSISTANT EXAMINER:	Cheung, William	
LEGAL REPRESENTATIVE:	Sughrue Mion, PLLC	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	990	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A polymer is produced by feeding a polymerization initiator, a cationically polymerizable monomer component and a catalyst continuously to a flow-through stirring vessel reactor to thereby allow the living polymerization to initiate and feeding a reaction solution from said flow-through stirring vessel reactor to a flow-through tubular reactor continuously to thereby allow the living polymerization to proceed, said reaction solution having a conversion rate of said cationically polymerizable monomer component of not less than 1% by weight to less than 90% by weight.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 7 OF 16 USPATFULL on STN

ACCESSION NUMBER: 2003:113606 USPATFULL  
TITLE: Triazine compounds, polymers comprising triazine structural units, and method  
INVENTOR(S): Brown, Sterling Bruce, Niskayuna, NY, UNITED STATES  
Brack, Hans Peter, Etten-Leur, NETHERLANDS  
Cella, James Anthony, Clifton Park, NY, UNITED STATES  
Karlik, Dennis, Bergen op Zoom, NETHERLANDS  
PATENT ASSIGNEE(S): General Electric Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003078347	A1	20030424
APPLICATION INFO.:	US 2001-941050	A1	20010828 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Frank A. Smith, GE Plastics, One Plastics Avenue, Pittsfield; MA, 01201		
NUMBER OF CLAIMS:	99		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2348		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB In various embodiments the present invention comprises 2,4,6-trisubstituted-1,3,5-triazine capping agents comprising one, two, or three leaving groups as substituents with any remaining substituents being essentially inert to reaction with a nucleophilic group on a polymer or monomer, or reactive with a nucleophilic group on a polymer or monomer at a slower rate than any leaving group. The invention also comprises polymers or monomers with nucleophilic groups capped with a triazine moiety. Still other embodiments of the invention comprise processes for capping nucleophilic groups in a polymer or monomer which comprises combining and reacting the polymer or monomer with a

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triazine-comprising capping agent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 8 OF 16 USPATFULL on STN

ACCESSION NUMBER: 2000:18522 USPATFULL

TITLE: Block-graft copolymer, self-crosslinked polymer solid electrolyte and composite solid electrolyte manufactured through use of the block-graft copolymer, and solid cell employing the composite solid electrolyte

INVENTOR(S): Hirahara, Kazuhiro, Niigata-ken, Japan  
Nakanishi, Toru, Tokyo, Japan  
Isono, Yoshinobu, Niigata-ken, Japan  
Takano, Atsushi, Niigata-ken, Japan

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6025437		20000215
APPLICATION INFO.:	US 1998-33731		19980303 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-65285	19970304
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Seidleck, James J.	
ASSISTANT EXAMINER:	Asinovsky, Olga	
LEGAL REPRESENTATIVE:	Loeb & Loeb, LLP	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	1367	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There are disclosed a self-crosslinked polymer solid electrolyte, a composite solid electrolyte, and a method of manufacturing the same. A high-energy ray is irradiated to a block-graft copolymer composed of a polymer block chain A represented by formula I and a polymer block chain B represented by formula III in order to crosslink the entire the system. A nonaqueous electrolytic solution is then added to the block-graft polymer to obtain a self-crosslinked polymer solid electrolyte. The self-crosslinked polymer solid electrolyte and an electrically insulating material are combined to obtain a composite solid electrolyte. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 9 OF 16 USPATFULL on STN

ACCESSION NUMBER: 1998:157448 USPATFULL

TITLE: Telechelic polystyrene/polyethylene copolymers and processes for making same

INVENTOR(S): Quirk, Roderic P., Akron, OH, United States

PATENT ASSIGNEE(S): FMC Corporation, Philadelphia, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5849847		19981215
APPLICATION INFO.:	US 1996-681805		19960729 (8)

NUMBER	DATE
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PRIORITY INFORMATION: US 1995-1895P 19950804 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Teskin, Fred  
LEGAL REPRESENTATIVE: Bell Seltzer Intellectual Property Law Group of Alston & Bird LLP  
NUMBER OF CLAIMS: 109  
EXEMPLARY CLAIM: 1,86  
LINE COUNT: 2155

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Polyalkenylaromatic-polyethylene copolymers are prepared using protected functional organolithium initiators. Polymerization of an alkenylsubstituted aromatic monomer followed by ethylene, results in a protected functional block polystyrene-co-polyethylenyllithium. Termination with a functionalizing agent followed by deprotection produces polymeric products with high functionalization at the initiating chain-end and at least partial functionalization at the terminal chain-end.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 10 OF 16 USPATFULL on STN

ACCESSION NUMBER: 1998:30841 USPATFULL  
TITLE: Resin composition for flexographic printing plate  
INVENTOR(S): Kanda, Kazunori, Yao, Japan  
Ueda, Koichi, Neyagawa, Japan  
Kakiuchi, Tadahiro, Kawanishi, Japan  
Muramoto, Hisaichi, Hirakata, Japan  
Sato, Hozumi, Tsukuba, Japan  
Koshimura, Katsuo, Yokkaichi, Japan  
Nishioka, Takashi, Yokkaichi, Japan  
PATENT ASSIGNEE(S): Nippon Paint Co., Ltd., Osaka-fu, Japan (non-U.S. corporation)  
Japan Synthetic Rubber Co., Ltd., Tokyo-to, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5731128		19980324
APPLICATION INFO.:	US 1995-564729		19951129 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1994-294456	19941129
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Hamilton, Cynthia	
LEGAL REPRESENTATIVE:	Wenderoth, Lind & Ponack	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1,12,19	
LINE COUNT:	1132	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a resin composition for flexographic printing plate, which is superior in rubber elasticity, hardness and elongation as well as water developability. The resin composition for flexographic printing plate capable of water developing, attains excellent rubber elasticity, hardness and elongation without deterioration of water developability, using as elastic particles copolymer elastic particles having whisker on the particle surface which forms an entanglement between particles.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.



## L3 ANSWER 11 OF 16 USPATFULL on STN

ACCESSION NUMBER: 93:48341 USPATFULL  
 TITLE: Lithium cell  
 INVENTOR(S): Yamada, Motoyuki, Kanagawa, Japan  
 Watanabe, Osamu, Kanagawa, Japan  
 Nakanishi, Toru, Kanagawa, Japan  
 Takamizawa, Minoru, Tokyo, Japan  
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5219681		19930615
APPLICATION INFO.:	US 1991-771432		19911010 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1990-272858	19901011
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Chaudhuri, Olik	
ASSISTANT EXAMINER:	Nuzzolillo, M.	
LEGAL REPRESENTATIVE:	Wyatt, Gerber, Burke and Badie	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 4 Drawing Page(s)	
LINE COUNT:	596	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A lithium cell having excellent discharging and recharging characteristics is proposed which is characteristic in the unique formulation of the polymeric solid electrolyte composition having a high ionic conductivity to fill the space between the anode and the cathode. The electrolyte composition comprises: (a) a block copolymer of styrene and 4-hydroxystyrene, of which the phenolic hydroxy groups in the 4-hydroxystyrene moiety are substituted by the grafting chains of poly(ethylene oxide) moiety having a specified chain length, (b) an ionic lithium salt and (c) a poly(ethylene oxide) in a specified weight proportion.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

## L3 ANSWER 12 OF 16 USPAT2 on STN

ACCESSION NUMBER: 2004:178075 USPAT2  
 TITLE: Patternable low dielectric constant materials and their use in ULSI interconnection  
 INVENTOR(S): Lin, Qinghuang, Yorktown Heights, NY, UNITED STATES  
 Sooriyakumaran, Ratnam, San Jose, CA, UNITED STATES  
 PATENT ASSIGNEE(S): International Business Machines Corporation, Armonk, NY, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 7041748	B2	20060509
APPLICATION INFO.:	US 2003-338945		20030108 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Robertson, Jeffrey B.		
LEGAL REPRESENTATIVE:	Scully, Scott, Murphy & Presser, Jaklitsch, Lisa U.		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT:	1207		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to ultra-large scale integrated (ULSI) interconnect structures, and more particularly to patternable low dielectric constant (low-k) materials suitable for use in ULSI interconnect structures. The patternable low-k dielectrics disclosed herein are functionalized polymers that having one or more acid-sensitive imageable functional groups.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:874456 CAPLUS

DOCUMENT NUMBER: 143:410802

TITLE: Controlled Delivery of Paclitaxel from Stent Coatings Using Poly(hydroxystyrene-b-isobutylene-b-hydroxystyrene) and Its Acetylated Derivative

AUTHOR(S): Sipos, Laszlo; Som, Abhijit; Faust, Rudolf; Richard, Robert; Schwarz, Marlene; Ranade, Shrirang; Boden, Mark; Chan, Ken

CORPORATE SOURCE: Polymer Science Program, Department of Chemistry, University of Massachusetts Lowell, Lowell, MA, 01854, USA

SOURCE: Biomacromolecules (2005) 6(5), 2570-2582

CODEN: BOMAF6; ISSN: 1525-7797

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A poly(styrene-b-isobutylene-b-styrene) (SIBS) triblock polymer is employed as the polymer drug carrier for the TAXUS Express2 Paclitaxel-Eluting Coronary Stent system (Boston Scientific Corp.). It has been shown that the release of paclitaxel (PTx) from SIBS can be modulated by modification of either drug-loading ratio or altering the triblock morphol. by blending. In the present work, results toward achieving release modulation of PTx by chemical modification of the styrenic portion (using hydroxystyrene or its acetylated version) of the SIBS polymer system are reported. The synthesis of the precursor poly{(p-tert-butyltrimethylsilyloxystyrene)-b-isobutylene-b-(p-tert-butyltrimethylsilyloxystyrene)} triblock copolymers was accomplished by living sequential block copolymerization of isobutylene (IB) and p-(tert-butyltrimethylsiloxy)styrene (TBDMS) utilizing the capping-tuning technique in a one-pot procedure in methylcyclohexane/CH<sub>3</sub>Cl at -80°. This procedure involved the living cationic polymerization of IB with the 5-tert-butyl-1,3-bis(1-chloro-1-methylethyl)benzene/TiCl<sub>4</sub> initiating system and capping of living difunctional polyisobutylene (PIB) chain ends with 1,1-ditolylethylene (DTE) followed by addition of titanium(IV) isopropoxide (Ti(OiPr)<sub>4</sub>) to lower the Lewis acidity before the introduction of TBDMS. Deprotection of the product with tetrabutylammonium fluoride yielded poly(hydroxystyrene-b-isobutylene-b-hydroxystyrene), which was quantitatively acetylated to obtain the acetylated derivative. The hydroxystyrene and acetoxystyrene triblock copolymers have acceptable mech. properties for use as drug delivery coatings for coronary stent applications. It was concluded that the hydrophilic nature of the endblocks and polarity effects on the drug/polymer miscibility lead to enhanced release of PTx from these polymers. The drug-polymer miscibility was confirmed by differential scanning calorimetry and atomic force microscopy evaluations.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:735362 CAPLUS

S/N 10/776,674

DOCUMENT NUMBER: 143:194425  
TITLE: Copolymers comprising olefin and protected or unprotected hydroxystyrene units and manufacture of block copolymers  
INVENTOR(S): Faust, Rudolf; Sipos, Laszlo  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 11 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005176891	A1	20050811	US 2004-776674	20040211
CA 2554530	A1	20050825	CA 2005-2554530	20050211
WO 2005077995	A1	20050825	WO 2005-US4379	20050211
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1723185	A1	20061122	EP 2005-722963	20050211
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
PRIORITY APPLN. INFO.:			US 2004-776674	A 20040211
			WO 2005-US4379	W 20050211

AB Copolymers, including block copolymers, comprise (a) many constitutional units that correspond to  $\geq 1$  olefin monomer, e.g. isobutylene and (b) many constitutional units that correspond to  $\geq 1$  protected (or unprotected) hydroxystyrene monomer species. These copolymers are capable of being hydrolyzed, forming polymers of increased hydrophilicity.

L3 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:930087 CAPLUS  
DOCUMENT NUMBER: 142:94257  
TITLE: Synthesis and Characterization of Triptych  $\mu$ -ABC Star Triblock Copolymers  
AUTHOR(S): Li, Zhibo; Hillmyer, Marc A.; Lodge, Timothy P.  
CORPORATE SOURCE: Department of Chemistry and Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN, 55455, USA  
SOURCE: Macromolecules (2004), 37(24), 8933-8940  
CODEN: MAMOBX; ISSN: 0024-9297  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB We describe a general procedure for the synthesis of miktoarm star triblock copolymers with a hydrocarbon, a fluoropolymer, and a hydrophilic segment. Several  $\mu$ -(polyethylethylene)(poly(ethylene oxide))(poly(perfluoropropylene oxide)) [ $\mu$ -(PEE)(PEO)(PFPO)] star triblock copolymers were prepared using two successive anionic polymerization steps and one polymer-polymer coupling reaction. Initially, living polybutadienyllithium chains were end-capped with 2-methoxymethoxymethylloxirane forming a heterobifunctional 1,2-polybutadiene

(PBD) precursor, with a hydroxyl group and a protected hydroxyl group at one chain end. Catalytic hydrogenation of this PBD gave the corresponding polyethylethylene (PEE) while preserving the end group structures. Transformation of the terminal hydroxyl group in the PEE precursor to a potassium alkoxide followed by addition of ethylene oxide and subsequent end-capping with Et bromide generated polyethylethylene-poly(ethylene oxide) (PEE-PEO) diblock copolymers with a protected hydroxyl group at the junction. Deprotection of the methoxymethyl group followed by coupling with acid chloride end-capped PFPO yielded well-defined  $\mu$ -(PEE)(PEO)(PFPO) star triblock copolymers. Detailed mol. characterization of these products and their precursors confirmed the composition and architecture of these new star block copolymers. This modular strategy represents a new, straightforward, and versatile methodol. for the preparation of mixed arm star block copolymers.

REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:755619 CAPLUS

DOCUMENT NUMBER: 134:42549

TITLE: Synthesis of Novel Aggregating Comb-Shaped Polyethers for Use as Polymer Electrolytes

AUTHOR(S): Jannasch, Patric

CORPORATE SOURCE: Department of Polymer Science Engineering, Lund University, Lund, SE-221 00, Swed.

SOURCE: Macromolecules (2000), 33(23), 8604-8610

CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Polyethers having well-defined comb-shaped architectures were prepared by using poly(4-hydroxystyrene) (PHSt) as a multifunctional initiator for graft polymerization of either ethylene oxide (EO) or a mixture of EO and propylene

oxide (PO). The grafting process was performed in 1,4-dioxane using NaH as ionizer for the PHSt hydroxyl groups. The precursor PHSt was prepared by first polymerizing 4-tert-butoxystyrene, using butyllithium as initiator in THF at -60 °C, and then deprotecting the butoxy groups. Finally, the terminal hydroxyl groups of the polyether grafts were end-capped with hexadecanoyl units through esterification. The monomer addition sequence in the graft copolymns. with the same EO/PO feed ratio proved to have a great influence on the crystallization temperature and the crystallinity of the

grafts. Also, the end-capping was found to reduce the degree of crystallinity as compared to the corresponding uncapped polymers. Solid polymer electrolytes containing lithium triflate (LiSO<sub>3</sub>CF<sub>3</sub>) salt had ambient temperature ion conductivities of .apprx.10<sup>-5</sup> S/cm at [Li]/[O] = 0.025.

Thermal

anal. of the electrolytes showed that the polymers aggregated through phase separation of the hexadecanoyl chain ends.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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